

Cometary Molecules

Molecules with Two Atoms			
CN cyanide radical	CS carbon monosulfide	CO carbon monoxide	C ₂ diatomic carbon
CH methylidyne	NH imidyl radical	OH hydroxyl radical	S ₂ diatomic sulfur
SH ? mercapto radical	SO sulfur monoxide	NS nitrogen sulfide	NO ? nitrous oxide
N ₂ ⁺	CO ⁺	CH ⁺	OH ⁺
	CN ⁺	H ₂	

Molecules with Three Atoms		
H ₂ O water	HDO monodeuterated water	H ₂ O ¹⁸ oxygen-18 water
CO ₂ carbon dioxide	C ₃ triatomic carbon	H ₂ S hydrogen sulfide
NH ₂ amidogen radical	SO ₂ sulfur dioxide	HCN hydrogen cyanide
HNC hydrogen isocyanide	HCO formyl radical	OCS carbonyl sulfide
H ₂ O ⁺	HCO ⁺	CO ₂ ⁺
H ₂ S ⁺	CS ₂ carbon disulfide	CN ₂

Molecules with Four Atoms				
C ₂ H ₂ acetylene	H ₂ CO formaldehyde	H ₂ CS thioformaldehyde	NH ₃ ammonia	HNCO isocyanic acid

Molecules with Five Atoms		
HCOOH formic acid	HCC-CN cyanoacetylene	CH ₄ methane

Molecules with Six Atoms		
CH ₃ OH methyl alcohol	CH ₃ CN methyl cyanide	HC(O)NH ₂ formamide

Molecules with Seven Atoms
HC(O)CH ₃ acetaldehyde

Molecules with Eight Atoms	
C ₂ H ₆ ethane	HC(O)OCH ₃ methyl formate

Molecules with Ten Atoms	
(HO)CH ₂ CH ₂ (OH) ethylene glycol	

Other Species	
silicates	uncharacterized hydrocarbons

See <http://www-691.gsfc.nasa.gov/cosmic.ice.lab/> for the most recent list.

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